

Title (en)

BORON CARBIDE-CONTAINING CERAMIC BONDED BODY AND METHOD FOR PRODUCING THE BONDED BODY

Title (de)

BORCARBIDHALTIGER KERAMISCH GEBUNDENER KÖRPER UND VERFAHREN ZUR HERSTELLUNG DES GEBUNDENEN KÖRPERS

Title (fr)

CORPS STRATIFIÉ CONTENANT DE LA CÉRAMIQUE AU CARBURE DE BORE ET PROCÉDÉ POUR LE FABRIQUER

Publication

EP 2612844 A4 20140507 (EN)

Application

EP 11821831 A 20110830

Priority

- JP 2010253236 A 20101111
- JP 2010193784 A 20100831
- JP 2011069670 W 20110830

Abstract (en)

[origin: EP2612844A1] A bonded, boron carbide-containing ceramic body includes ceramic members. These ceramic members each contain boron carbide at 2 mass% or higher, and are integrated together via a bonding layer bonded with a bonding material containing at least one metal selected from the group consisting of aluminum, copper, gold and zirconium or integrated together via a bonding layer formed from one of aluminum metal and an aluminum compound and a titanium compound as bonding materials, wherein a bonded part has a strength of 100 MPa or higher. According to this technology, the boron carbide-containing ceramic members can be bonded together with a high strength of 100 MPa or more by a simple process, and further, the bonding is feasible with excellent chemical resistance at the bonded part as needed.

IPC 8 full level

C04B 37/00 (2006.01); **C04B 35/563** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [X] WO 9700734 A1 19970109 - DOW CHEMICAL CO [US]
- [A] US 3730827 A 19730501 - MATCHEN B, et al
- See references of WO 2012029816A1

Cited by

EP2821381A4; US9789671B2

Designated contracting state (EPC)

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